

AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Currently Amended) A gas generating composition, comprising:

- (a) 0.5 to 5% by mass of phosphate glass comprising P₂O₅, Al₂O₃, Na₂O and K₂O, and having a softening point of 550°C or less;
- (b) 1 to 15% by mass of aluminum hydroxide;
- (c) an organic compound as fuel, said fuel is at least one selected from the group consisting of tetrazole compounds, guanidine compounds, triazine compounds, and nitroamine compounds;
- (d) an oxygen-containing oxidizing agent; and
- (e) a binder being at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

3. (Previously Presented) The gas generating composition as claimed in Claim 2, further comprising:

at least one selected from the group consisting of,

- (f) an additive selected from a metal oxide and a metal carbonate, and
- (g) silicon dioxide having a specific surface area of 100 to 500 m²/g.

4. (Previously Presented) The gas generating composition as claimed in Claim 3, wherein the content of the component (c) is 30 to 60% by mass, the content of the component (d) is 60% by mass or less, the content of the component (e) is 10% by mass or less, the content of the component (f) is 10% by mass or less, and the content of the component (g) is 5% by mass or less.

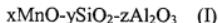
5. (Withdrawn) The gas generating composition as claimed in Claim 1 or 2, wherein the glass powder as component (a) is an amorphous material consisting of at least one of a mixture of metal oxides and non-metal oxides.

6. (Withdrawn) The gas generating composition as claimed in Claim 5, wherein the metal oxides are selected from the group consisting of silicon dioxide, sodium oxide, potassium oxide, calcium oxide, magnesium oxide, barium oxide, lead oxide, boron oxide, and aluminum oxide.

7. (Cancelled)

The gas generating composition as claimed in Claim 1 or 2, wherein the glass powder as component (a) is selected from the group consisting of quartz glass, 96% quartz glass, soda lime glass, lead glass, aluminoborosilicate glass, borosilicate glass, aluminosilicate glass, phosphate glass, and chalcogen glass.

8. (Withdrawn) The gas generating composition as claimed in Claim 1 or 2, wherein the glass powder as component (a) is represented by the following formula (I):



in which x, y, and z are the mole number.

9. (Withdrawn) The gas generating composition as claimed in Claim 8, wherein proportions of x, y, and z of the formula (I) are 35 to 50 mole % of x, 30 to 60 mole % of y, and 5 to 20 mole % of z.

10. (Cancelled)

11. (Previously Presented) The gas generating composition as claimed in Claim 2, wherein the oxygen-containing oxidizing agent as component (d) is at least one selected from the group consisting of nitrates, perchlorates, chloric acid, a basic metal nitrate, and ammonium nitrate

12. (Currently Amended) A gas generating composition comprising:

- (a) 0.5 to 5% by mass of phosphate glass comprising P₂O₅, Al₂O₃, Na₂O and K₂O,
and having a softening point of 550°C or less;
- (b) 1 to 15% by mass of aluminum hydroxide;
- (c) an organic compound as fuel, said fuel is at least one selected from the group consisting of tetrazole compounds, guanidine compounds, triazine compounds, and nitroamine compounds;
- (d) an oxygen-containing oxidizing agent;
- at least one selected from the group consisting of the following components (e) and (f),
- (e) a binder,
- (f) an additive selected from a metal oxide and a metal carbonate; and optionally
- (g) silicon dioxide having a specific surface area of 100 to 500 m²/g,
- wherein the binder as component (e) is at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

13. (Previously Presented) The gas generating composition as claimed in Claim 3, wherein the additive as component (f) is at least one selected from the group consisting of metal oxides including cupric oxide, iron oxide, zinc oxide, cobalt oxide, manganese oxide, molybdenum oxide, nickel oxide, bismuth oxide, gallium oxide, silica or alumina, metal hydroxides including cobalt hydroxide or iron hydroxide, metal carbonates or basic metal carbonates including cobalt carbonate, calcium carbonate, magnesium carbonate, a basic zinc carbonate or a basic copper carbonate, composite compounds of metal oxides or metal hydroxides including Japanese acid clay, kaolin, talc, bentonite, diatomaceous earth or hydrotalcite, metal acid salts including sodium silicate, mica molybdate, cobalt molybdate or ammonium molybdate, silicone, molybdenum disulfide, calcium stearate, silicon nitride, and silicon carbide.

14. (Previously Presented) The gas generating composition as claimed in Claim 3, wherein the component (e) the binder is contained in an amount of 1.0 to 5.0 mass %.

15. (Currently Amended) A gas generating composition, comprising:
0.5 to 1% by mass of phosphate glass comprising P₂O₅, Al₂O₃, Na₂O and K₂O and having a softening point of 550°C or less;
1 to 15% by mass of aluminum hydroxide;
guanidine nitrate;
a basic copper nitrate; and

a binder being at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

16. (Withdrawn) A gas generating composition, comprising:

glass powder;

a mixed fuel containing guanidine nitrate;

a basic copper nitrate; and

a binder being at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

17. (Withdrawn) The gas generating composition as claimed in Claim 16, wherein the mixed fuel containing guanidine nitrate is a mixed fuel of guanidine nitrate and at least one selected from the group consisting of nitroguanidine, melamine, monoaminoguanidine nitrate, diaminoguanidine nitrate, and triaminoguanidine nitrate.

18. (Previously Presented) The gas generating composition as claimed in Claim 15, further comprising:

magnesium hydroxide.

19. (Previously Presented) A molded article of the gas generating composition being in the shape of a single perforated cylinder or a perforated cylinder, obtained by extrusion-molding the gas generating composition as defined in Claim 2 or 15.

20. (Previously Presented) An inflator for air bag, using the gas generating composition as defined in Claim 2 or 15.

21. (Previously Presented) An inflator for air bag, using the molded article of the gas generating composition as defined in Claim 19.

22. (Previously Presented) The gas generating composition as claimed in Claim 2, wherein a particle diameter of the phosphate glass, in terms of 50% particle diameter, is 10 to 300 μm .

23. (Previously Presented) The gas generating composition as claimed in Claim 22, wherein the particle diameter of the phosphate glass is 10 to 100 μm .

24. (Previously Presented) The gas generating composition as claimed in Claim 23, wherein a particle diameter of the phosphate glass is 10 to 50 μm .

25. - 26. (Canceled) The gas generating composition as claimed in Claim 1 or 2, wherein the content of the glass powder is 0.1 to 20% by mass.

27. (**Currently Amended**) A gas generating composition, comprising:

an organic compound as a fuel, said fuel is at least one selected from the group consisting of tetrazole compounds, guanidine compounds, triazine compounds, and nitroamine compounds;

0.5 to 5% by mass of phosphate glass comprising P_2O_5 , Al_2O_3 , Na_2O and K_2O , and
having a softening point of 550°C or less;

1 to 15% by mass of aluminum hydroxide; and

at least one selected from the group consisting of,

a binder,

an additive selected from a metal oxide and a metal carbonate, and

silicon dioxide having a specific surface area of 100 to 500 m^2/g ,

wherein the binder is at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose,

carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.